REMARKS

Claims 56 and 67-112 are currently pending in this application. Claims 56, 67-78, 106, and 107 are withdrawn from consideration. Claims 79-93 are allowed. Claims 94-105 and 108-112 are rejected under 35 U.S.C. § 103(a) for obviousness over Schena et al. (PNAS 93:10614-10619, 1996; hereinafter "Schena") in view of Komarova et al. (Oncogene 17:1089-1096, 1998; hereinafter "Komarova"). By this reply, Applicants cancel claims 56, 67-78, 106, and 107, amend claims 79, 93, and 94, and address this rejection.

Support for the Amendment

Claims 79, 93, and 94 are amended to clarify the claimed subject matter. No new matter is added by the amendment.

Rejections under 35 U.S.C. § 103(a)

Claims 94-105 and 108-112 are rejected under 35 U.S.C. § 103(a) over Schena in view of Komarova. The Examiner states: "[i]t would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use the method and microarray as taught by Schena et al. to study apoptosis as an indicator of the toxicity of compounds applied to cells as taught by Komarova et al. in order to have the efficiency of a chip based approach to study gene expression in humans" (p. 6, Office Action).

In the Reply to Office Action filed on March 14, 2007, independent claim 94 was amended to recite a method for analyzing or determining the toxicity of a test compound by using an immobilized library of nucleic acid molecules to detect the expression of differentially spliced nucleic acid molecules characteristic of apoptosis in cells contacted with the test compound, but not in cells not contacted with the test compound. As amended, claim 94 recites that the nucleic acid library "consists essentially of" marker nucleic acids specific for all or a portion of one or more human genes that are differentially spliced during apoptosis and one or more control nucleic acid molecules

which normalize the hybridization signals between the first and second labeled nucleic acid probes and the nucleic acid library. In response to this amendment, the Examiner cites MPEP § 2111.03, which states that, "absent a clear indication in the specification or claims of what the basic and novel characteristics actually are, 'consisting essentially of' will be construed as equivalent to 'comprising.'" Applicants respectfully disagree that the phrase "consists essentially of," as used in present claims 94-105 and 108-112, should be construed as equivalent to "comprising."

The MPEP states that "the transitional phrase 'consisting essentially of' limits the scope of the claim to the specified materials or steps 'and those that do not materially affect the basic and novel characteristic(s)' of the claimed invention" (MPEP § 2111.03). A material or step "has a material effect on the characteristics of the [claimed invention] 'if the effect is of importance or of consequence to those of ordinary skill in the art...'" *PPG Industries v. Guardian Industries*, 156 F .3d 1351, 1354, 48 USPQ2d 1351, 1353-54 (Fed. Cir. 1998). As recited in claim 94, the nucleic acid library of the invention consists essentially of marker nucleic acids specific to at least a portion of one or more human genes that are differentially spliced during apoptosis. One of ordinary skill in the art would recognize that the inclusion of non-differentially spliced nucleic acid molecules in the nucleic acid library of claim 94 would materially affect the basic and novel characteristics of the claimed invention. For example, by excluding non-differentially spliced nucleic acid molecules, the support of present claims 94-105 and 108-112 reduces the likelihood of false positives.

Thus, Applicants submit that the transitional phrase "consisting essentially of" excludes those nucleic acid molecules that are not differentially spliced in human cells during apoptosis. As such, the invention of independent claim 94, and claims dependent therefrom, is not taught or suggested by the gene chips described by Schena and Komarova because the gene chips of Schena and Komarova contain nucleic acid molecules that are not differentially spliced. Indeed, as submitted in the Reply to Office Action filed on March 14, 2007, both Schena and Komarova fail to teach or suggest a nucleic acid library that consists essentially of all or a portion of one or more

differentially spliced human genes present when a human cell is undergoing or has undergone apoptosis and one or more control nucleic acid molecules, as is required by present claims 94-105 and 108-112.

For the reasons discussed above, Schena and Komarova, either alone or in combination, fail to teach or suggest the method of claims 94-105 and 108-112 because these references fail to teach or suggest the recited nucleic acid library. Because Schena and Komarova fail to teach or suggest all of the limitations of present claims 94-105 and 108-112, as is required to establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a), the rejection of present claims 94-105 and 108-112 may now be withdrawn.

CONCLUSION

Applicants submit that the claims are novel and inventive over the prior art and respectfully request favorable reconsideration of the present application. In particular, it is believed that the claims are in condition for allowance, and a notification to that effect is respectfully requested.

Enclosed is a petition to extend the period for replying to the Office action for two months, to and including November 13, 2007, and a check for the fee required under 37 C.F.R. § 1.17(a).

If there are any charges or any credits, please apply them to Deposit Account No. 03-2095.

Respectfully submitted,

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